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## **SAR EXCLUSION REPORT**

**Manufacturer:** Transducers Direct, LLC  
12115 Ellington Court  
Cincinnati, Ohio 45249 USA

**Applicant:** Same As Above

**Product Name:** TDWLB Series Wireless Bluetooth Pressure Transducer, Ver.2

**Product Description:** Bluetooth Enabled Wireless Pressure Transducer Version 2

**Model:** TDWLBG2

**Part Number:** TDWLB0100031\*

*\*Denotes actual part number tested as representative of product family identified in Section 5.0 of this Test Report.*

**FCC ID:** 2ACGE-TDWLBG2

**Standards:**

- KDB447498 Appendix A

**Report Constructed by:**

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**Report Reviewed by:**

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## 1 ADMINISTRATIVE INFORMATION

### 1.1 Measurement Location:

F2 Labs in Middlefield, Ohio. Site description and attenuation data are on file with the FCC's Sampling and Measurement Branch at the FCC Laboratory in Columbia, MD.

### 1.2 Document History

Document Number	Description	Issue Date	Approved By
F2LQ8686B-03E	First Issue	Feb. 17, 2017	K. Littell



## 2 SUMMARY OF RESULTS

	Standard(s)	Results
SAR Exclusion	KDB447498, Appendix A	Complies

Modifications Made to the Equipment
None



### 3 ENGINEERING STATEMENT

This report has been prepared on behalf of Transducers Direct, LLC to provide documentation for the SAR Exclusion herein. This equipment has been tested and found to comply with the SAR Exclusion levels listed in Appendix A of KDB447498. The highest peak output power measured from the EUT was 3.78mW and the highest EIRP was 6.14mW which is well below the exclusion limit of 10mW at 5mm.

#### Appendix A

##### *SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm*

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table. The equation and threshold in 4.3.1 must be applied to determine SAR test exclusion.

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	SAR Test Exclusion Threshold (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	
MHz	30	35	40	45	50	mm
150	232	271	310	349	387	SAR Test Exclusion Threshold (mW)
300	164	192	219	246	274	
450	134	157	179	201	224	
835	98	115	131	148	164	
900	95	111	126	142	158	
1500	73	86	98	110	122	
1900	65	76	87	98	109	
2450	57	67	77	86	96	
3600	47	55	63	71	79	
5200	39	46	53	59	66	
5400	39	45	52	58	65	
5800	37	44	50	56	62	

**Note:** 10-g Extremity SAR Test Exclusion Power Thresholds are 2.5 times higher than the 1-g SAR Test Exclusion Thresholds indicated above. These thresholds do not apply, by extrapolation or other means, to occupational exposure limits.



#### **4 EUT INFORMATION AND DATA**

##### **4.1 Equipment Under Test:**

Product: TDWLB Series Wireless Bluetooth Pressure Transducer, Ver.2

Model: TDWLBG2

Part No.: TDWLB0100031\*

Serial No.: None Specified

FCC ID: 2ACGE-TDWLBG2

*\*Denotes actual part number tested as representative of product family identified in Section 5.0 of this Test Report.*

##### **4.2 Trade Name:**

Transducers Direct, LLC

##### **4.3 Power Supply:**

Battery-operated

##### **4.4 Applicable Rules:**

KDB447498

##### **4.5 Equipment Category:**

Radio Transmitter-DTS

##### **4.6 Antenna:**

2.1dBi Integral Antenna

##### **4.7 Accessories:**

N/A



Order Number: F2LQ8686B

Applicant: Transducers Direct, LLC

Model: TDWLBG2

## 5.0 PRODUCT FAMILY IDENTIFICATION

Series	Pressure Range	Pressure Connection	Accuracy	
TDWLB	0100 (psi)	03	4	**
	0050	03= 1/4" NPT Male	4 = 1.0%	
	0100	09= 7/16-20 UNF Male	2 = 0.25%	
	0250	13= G1/4 Male		
	0500	42= 7/16-20 UNF		
	0650	Female		
	1000	w/ 45° flare & valve		
	3000	depressor		
	5000	(Schrader)		
	010K	**		
	**	**= Consult factory for further OEM options.		